The Impact *of* Health Reform *on* Underinsurance *in* Massachusetts: Do the insured have adequate protection?

Massachusetts Health Reform Survey

Policy Brief

{PREPARED BY}
Sharon K. Long

Urban Institute
2100 M Street, NW
Washington, DC 20037

{FUNDED BY}
Blue Cross Blue Shield of Massachusetts Foundation
The Commonwealth Fund
Robert Wood Johnson Foundation

October 2008

The Impact of Health Reform on Underinsurance in Massachusetts: Do the Insured Have Adequate Protection?

One important goal of Massachusetts' comprehensive health care reform initiative was to ensure the affordability and adequacy of coverage, so that individuals now required to have health insurance would not be forced into plans that offer little financial protection. There was a concern among some that low-income residents would go from uninsured to underinsured under health reform. This policy brief provides an assessment of the extent to which the insurance provided in Massachusetts under health reform in 2007 protects individuals from financial risk in the event of a major illness or injury.

Health reform in Massachusetts led to a substantial drop in the uninsurance rate in the first year after implementation, accompanied by improvements in access to health care and reductions in the financial burden of obtaining health care (Long 2008). In an attempt to protect individuals from underinsurance, as part of that health reform effort Massachusetts established a standard for "minimum creditable coverage" (MCC) that outlines the key benefits that must be included in an individual's health insurance plan if it is to satisfy the state's new individual mandate for health insurance coverage. The required benefits, which are intended to protect those with insurance from high health care costs, include preventive and primary care, prescription drugs, a maximum on the annual deductible and a maximum on out-of-pocket spending, among other things.[1] The Connector Board is currently considering some adjustments to the MCC standards, some of which are technical corrections and some more substantive changes (such as a redefinition of "core services" that cannot have caps or limits and the "broad range of medical benefits" that must be covered but can have limits). Under the proposed new standards, High Deductible Health Plans must be linked with Health Savings Accounts or Health Reserves Accounts to be MCC compliant.[2] The new standards, currently slated to become effective January 1, 2009, are incorporated in the state's new CommCare and CommChoice programs, and have led to some expansions in benefits under commercial plans in the state in advance of the effective date.

Underinsurance is a concern in the context of Massachusetts' individual mandate because some people may choose plans with limited benefits and high cost-sharing in order to carry a lower monthly premium cost. Limited benefits and high cost-sharing under health plans place more of the financial risk of high health care costs on the individual and may cause individuals to go without needed care to avoid health care expenditures. While individuals with higher incomes may have the resources to cover the costs of a serious health crisis, low- and moderate-income individuals may find themselves in financial difficulties if the cost of the care they need exceeds the coverage under their health insurance plan. Similarly, individuals with health problems are at greater financial risk if they are underinsured given their higher expected health care costs.

---

[1] *For more information on minimum creditable coverage, see the Commonwealth Connector summary "Health Care Reform: What Insurance Covers" at http://www.mahealthconnector.org/portal/site/connector/menuitem.9ccd4bd144d4e8b2dbef6f47d7468a0c/*

[2] *For information on proposed changes to MCC requirements, see Commonwealth Connector "Health Care Reform: Key Decisions Minimum Creditable Coverage Background Materials" at http://www.mahealthconnector.org/portal/site/connector/template.MAXIMIZE/menuitem.3ef8fb03b7fa1ae4a7ca7738e6468a0c/?javax.portlet.tpst=2fdfb140904d489c8781176033468a0c_ws_MX&javax.portlet.prp_2fdfb140904d489c8781176033468a0c_viewID=content&javax.portlet.prp_2fdfb140904d489c8781176033468a0c_docName=MCC%20Background.htm&javax.portlet.prp_2fdfb140904d489c878117603346 8a0c_folderPath=/Health%20Care%20Reform/What%20Insurance%20Covers/MCC%20Background/&javax.portlet.begCacheTok=com.vignette.cachetoken&javax.portlet.endCacheTok=com.vignette.cachetoken*

A recent study by Schoen and colleagues (2008) documented a significant increase in the share of Americans who are underinsured. They report that, among working-age adults 18 to 64, 14 percent of all adults and 20 percent of all insured adults were underinsured in 2007, compared to 9 percent and 12 percent, respectively, in 2003. This brief uses a similar measure of underinsurance to examine changes in underinsurance in Massachusetts under health reform.

{Data and Methods}

The analysis uses two rounds of interviews with adults age 18 to 64 years old in Massachusetts, conducted in fall 2006, just prior to the implementation of many of the key elements of reform, and fall 2007, approximately one year after the reform efforts began.[3] In the analyses reported here, we compare working-age adults (18 to 64) in the period following the implementation of health reform (fall 2007) to a similar sample of adults in the period just prior to the implementation of key elements of reform (fall 2006).[4] Since Massachusetts's health reform initiative was not fully implemented by fall 2007, this provides an interim assessment of the impacts of health reform.

Under this "pre-post" framework, any differences in outcomes between the two periods are attributed to the state's reform efforts. The primary risk in this type of analysis is that there are other factors, beyond health reform, that changed over the same time period (e.g., an economic downturn) (Mohr 1995). These confounding changes, if they affected the outcomes of interest, would bias the estimates of the impacts of the state's reform efforts reported here. Available data suggest that the Massachusetts economy was fairly stable from fall 2006 to fall 2007.[5]

Defining Underinsurance. In brief, underinsurance means that an individual's health insurance does not adequately protect him or her from high health care costs in the event of a serious illness or accident. A complete assessment of the adequacy of insurance coverage requires detailed information on the coverage and cost-sharing provisions of the individual's health insurance plan (Short and Banthin 1995). Given the data available in our survey, we are limited to a narrower focus that considers the individual's out-of-pocket (OOP) heath care costs. (Note that this is OOP costs for health care *beyond* the premium that the individual pays to purchase private coverage.) High OOP health care costs provides a conservative, lower-bound estimate of underinsurance as it only captures inadequate insurance coverage for those who had high health care costs in the last year. Consequently, this measure of underinsurance does not include any of the individuals with similar health insurance coverage who did not have high health care costs during the year.

We define an individual as being at risk of being underinsured if he or she had health insurance coverage for the full year and had high health care costs that were not covered by his or her health plan. Defining "high" health care costs is somewhat arbitrary. We follow the approach used by Schoen et al. (2005, 2008) and use two standards to assess underinsurance:

(1) Having OOP costs of 10 percent or more of family income—a threshold that has been used in prior studies of underinsurance, and

(2) Having OOP costs of 5 percent or more of family income *for low-income families* (defined as those with family income less than 200 percent of poverty)—a threshold for financial risk that is consistent with cost-sharing provisions in the State Children's Health Insurance Program (SCHIP).

---

[3] *Information on the survey is provided at http://www.urban.org/publications/411649.html.*

[4] *The fall 2006 sample was being fielded as the CommCare program was beginning for adults with incomes under 100 percent FPL. Enrollment in that program started slowly and was relatively low in fall 2006.*

[5] *The share of working-age adults in Massachusetts who were employed was stable at 64 percent in both fall 2006 and fall 2007 (and into spring 2008). Data available at http://lmi2.detma.org/Lmi/lmi_lur_a.asp. Further, the Federal Reserve's "Beige Book," which provides an assessment of local economic conditions, reported that the economy for the Boston region was generally stable in 2007. See Federal Reserve Board. "The Beige Book: Federal Reserve Districts: First District—Boston." November 28, 2007. http://www.federalreserve.gov/FOMC/BEIGEBOOK/2007/20071128/1.htm. Additional information on the limitations of the study design is provided in Long (2008).*

Given the limitations of our data, the measure of underinsurance reported here provides a conservative measure of the extent of underinsurance in Massachusetts.[6]

The work by Schoen and colleagues also considers the amount of the deductible under the individual's health plan relative to their income in determining underinsurance. Unfortunately, we do not have information on the amount of the deductible for many of the working-age adults in our sample in fall 2006 and so cannot include that measure in our analysis. However, in fall 2007, where we have better data on the amount of the deductible, only 1 percent of the sample reported a deductible of 5 percent or more of family income. Thus, the basic findings from this analysis of underinsurance would likely be unchanged by including the deductible in the measure of underinsurance.

Analytic Approach. In making comparisons in underinsurance across time, we control for differences in the samples of adults in fall 2006 and fall 2007 using multivariate regression models. The models include measures of the characteristics of the adult and his or her family and characteristics of the local health care market and economy in each year, where "local" is based on the individual's county of residence. Since the outcomes we consider are binary (0/1) variables, probit regression models are estimated, controlling for the complex design of the sample using the survey estimation procedures (svy) in Stata 10 (StataCorp 2007). Both unadjusted impacts and regression-adjusted impacts are reported, where the unadjusted impacts are the simple differences between the mean outcome in the fall 2006 and the mean outcome in fall 2007. The focus is on the regression-adjusted differences in presenting the results.

In the analysis, we examine the share of adults overall, of lower-income and higher-income adults, and of adults with health problems who are underinsured. We define lower-income adults as those with family incomes less than 300 percent of poverty, to reflect the eligibility standard for Massachusetts's new program that provides subsidized private insurance coverage for lower-income adults (Commonwealth Care or CommCare). Individuals with health problems are defined as those who report being in fair or poor health, having a health condition that limits their ability to work, or having one of four chronic diseases—hypertension, heart disease, diabetes or asthma.

{Findings}

Table 1 reports the share of working-age adults who had health insurance coverage for the full year who were underinsured based on the two definitions outlined above: (1) a single standard based on OOP health care costs of 10 percent or more of family income and (2) a standard that applies a lower cut-off for households with family income less than 200 percent of poverty based on the standards in SCHIP—OOP health care costs of 5 percent or more of family income.

Drop in Underinsurance. As shown, in fall 2006, at least 4 percent of all working-age adults with full-year insurance coverage in Massachusetts were underinsured under the first definition of underinsurance (10 percent or more of family income in OOP health care costs) and at least 7 percent were underinsured under the second definition. Under health reform, the share of insured adults who were underinsured under both definitions dropped by about 2 percentage points between fall 2006 and fall 2007, down to about 3 percent and 6 percent underinsured, respectively.

The greatest reductions in underinsurance among insured adults in Massachusetts under health reform were found for lower-income insured adults (underinsurance down between 5 and 5.5 percentage points) and insured adults with health problems (underinsurance down about 3 percentage points), the two groups most vulnerable to the risks of underinsurance. For higher income adults, we find very little evidence of underinsurance in either fall 2006 or fall 2007.

---

[6]The Massachusetts survey obtains information on income in poverty ranges (e.g., income less than 100 percent of poverty, income from 100 to 199 percent of poverty, income from 200 to 299 percent of poverty, etc.). In order to provide a conservative estimate of underinsurance, OOP health care costs relative to poverty are calculated using the maximum income level in the individual's reported income range. For a small share of the adults who are in the highest income group (income at or above 500 percent of poverty), it is not possible to determine whether they have OOP health care costs of 10 percent or more of their income. (This affects 29 adults in 2006 and 33 adults in 2007). Again, to be conservative in our estimates, these adults are assumed to not be underinsured. Assuming that they are underinsured does not change the basic findings reported here. Finally, 8 percent of the sample report OOP health care costs based on a range rather than an actual value. To provide a conservative estimate of underinsurance for these individuals, their OOP costs were assumed to be at the minimum expenditure level of their reported range.

Expanding the definition of underinsurance in 2007 to include a deductible of 5 percent or more of family income would raise the share of insured adults who were underinsured by only a small amount, from 5.6 percent to 6.1 percent based on the second definition of underinsurance (data not shown). As noted above, information on the deductible is not available in 2006, so it is not possible to compare 2006 to 2007 using this measure.

{TABLE 1} *Extent of Underinsurance for Full-year Insured Adults 18 to 64, Fall 2006 and Fall 2007*

	Fall 2006	Fall 2007	2007-2006 Simple Difference	Regression-adjusted Difference	Sample Size
All Full-Year Insured Adults					***4343***
Underinsurance (1): Out of pocket health care expenses are 10% or more of family income	*4.4%*	*2.6%*	*-1.8****	*-2.1****	
Underinsurance (2): Out of pocket health care expenses relative to family income are 5% or more of income for adults with family income less than 200% FPL and 10% or more of family income for higher income adults	*7.3%*	*5.6%*	*-1.7**	*-2.3***	
Full-Year Insured Adults with Family Income Less than 300% FPL					***1618***
Underinsurance (1): Out of pocket health care expenses are 10% or more of family income	*10.6%*	*5.8%*	*-4.8****	*-4.7****	
Underinsurance (2): Out of pocket health care expenses relative to family income are 5% or more of income for adults with family income less than 200% FPL and 10% or more of family income for higher income adults	*19.2%*	*13.7%*	*-5.5***	*-5.2***	
Full-Year Insured Adults with Family Income at 300% FPL or More					***2725***
Underinsurance (1): Out of pocket health care expenses are 10% or more of family income	*1.4%*	*0.6%*	*-0.7*	*N.A.*	
Underinsurance (2): Out of pocket health care expenses relative to family income are 5% or more of income for adults with family income less than 200% FPL and 10% or more of family income for higher income adults	*1.4%*	*0.6%*	*-0.7*	*N.A.*	
Full-Year Insured Adults with a Health Problem					***2490***
Underinsurance (1): Out of pocket health care expenses are 10% or more of family income:	*6.5%*	*4.1%*	*-2.5***	*-2.4***	
Underinsurance (2): Out of pocket health care expenses relative to family income are 5% or more of income for adults with family income less than 200% FPL and 10% or more of family income for higher income adults	*11.0%*	*7.9%*	*-3.1**	*-3.4***	

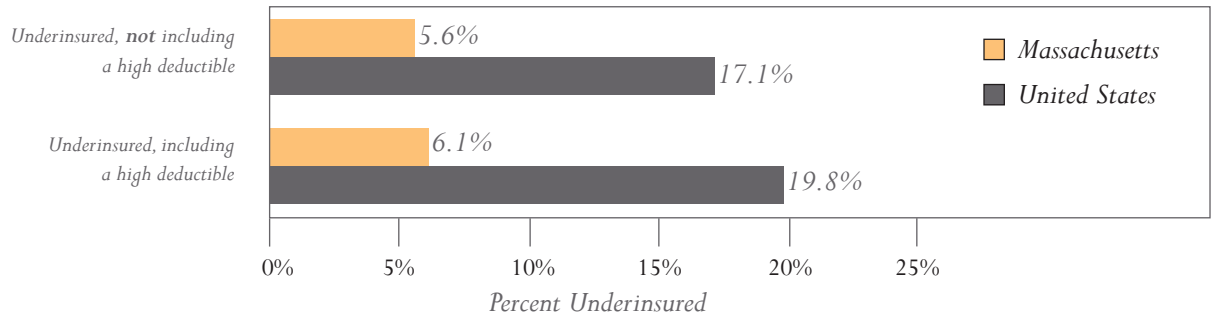
Source: 2006 and 2007 Massachusetts Health Reform Survey

Note: The regression-adjusted differences are derived from regression models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, literacy, employment, firm size, health status, disability status, whether the individual has one or more chronic conditions, family income, and the following county characteristics: unemployment rate, number of physicians per 1000 population, number of hospital beds per 1000 population.

**(**)(***)Difference is significantly different from zero at the .10 (.05) (.01) level, two-tailed test.*

N.A. Given the small number of higher-income adults who were underinsured, regression-adjusted estimates are not available.

{FIGURE 1} *Estimates of Underinsurance Among Full-Year Insured Adults in Massachusetts and the United States, 2007*



Source: Massachusetts figures from the 2007 Massachusetts Health Reform Survey; Figures for the United States from Schoen et al. (2008).
Notes: Underinsurance is defined using definition (2) as described in the text. High deductible is defined as a deductible of 5% or more of family income.

Comparing Massachusetts to the Nation. These findings for Massachusetts are substantially different from those reported by Schoen et al. (2008) for insured adults in the United States as whole (Figure 1). That study reported that, in 2007, 17 percent of insured Americans were underinsured based on the second definition of underinsurance outlined above.[7] The share underinsured increases to 20 percent if insured adults with a deductible of 5 percent or more of family income are included in the definition of underinsured.

In addition to being substantially higher than the levels of underinsurance in Massachusetts, the levels of underinsurance reported for the nation as a whole in 2007 represent a significant increase in underinsurance relative to 2003, where the levels of underinsurance among insured adults were 11 percent and, including the measure of a high deductible, 12 percent.

Clearly underinsurance is much less of an issue in Massachusetts than in the overall United States, with the trend in underinsurance in Massachusetts moving in the opposite direction from that of the rest of the country. While underinsurance among insured adults is high and increasing in the United States, underinsurance is low and dropping in Massachusetts.

The Shift Away from Uninsurance. With the increase in insurance coverage in Massachusetts under health reform, the share of the overall work-age adult population that was ever uninsured over the year dropped, as did the share that was underinsured (although the latter decline was not statistically significant). For simplicity, we focus on underinsurance based on the second definition of underinsurance in the remainder of this paper. As shown in table 2, the net result of those declines is that the share of all adults 18 to 64 who were insured all year and not underinsured (i.e., those who appear to have higher quality insurance) increased by about 5 percentage points under health reform. This pattern holds for lower-income adults (up 13 percentage points) and adults with health problems (up 7 percentage points). Thus, it appears that the gains in insurance coverage in Massachusetts under health reform represent a gain of comprehensive insurance coverage rather than, as some had feared, a shift from uninsurance to underinsurance.

Similar Challenges for the Underinsured and Uninsured. The financial stresses associated with underinsurance are very similar to those of uninsurance for adults in Massachusetts (table 3). Substantial shares of both underinsured and uninsured adults reported problems paying medical bills and having medical debt that they were paying off over time. Many in both groups also reported problems paying other bills (e.g., rent, mortgage, or utilities), with those financial problems most common among the uninsured. Perhaps not surprisingly given that they lacked insurance coverage for some period of time over the year, more of the adults who were uninsured than those who were underinsured reported that they did not get medical care that they needed because of cost over the prior year (37 percent versus 17 percent).

[7] *Because of differences in the data available to this study and that collected in the survey used by Schoen et al. (2008), it is not possible to replicate the precise measures used in the earlier study. Our measures are in keeping with the general structure of the measures used in the earlier study.*

{TABLE 2} *Insurance, UnderInsurance and Uninsurance for All Adults 18 to 64, Fall 2006 and Fall 2007*

	Fall 2006	Fall 2007	2007-2006 Simple Difference	Regression-adjusted Difference	Sample Size
All Adults					***5699***
Insured all year, not underinsured (by definition (2))	*75.3%*	*80.9%*	*5.6****	*5.0****	
Insured all year, underinsured (by definition (2))	*5.9%*	*4.8%*	*-1.2*	*-1.2*	
Uninsured during the year	*18.7%*	*14.5%*	*-4.2****	*-3.5****	
All Adults with Family Income Less than 300% FPL					***2677***
Insured all year, not underinsured (by definition (2))	*52.4%*	*65.7%*	*13.3****	*12.6****	
Insured all year, underinsured (by definition (2))	*12.5%*	*10.4%*	*-2.0*	*-1.9*	
Uninsured during the year	*34.9%*	*24.4%*	*-10.5****	*-9.5****	
All Adults with Family Income at 300% FPL or More					***3111***
Insured all year, not underinsured (by definition (2))	*91.5%*	*92.1%*	*0.6*	*0.4*	
Insured all year, underinsured (by definition (2))	*1.3%*	*0.6%*	*-0.7*	*N.A.*	
Uninsured during the year	*7.2%*	*7.2%*	*0.1*	*0.3*	
All Adults with a Health Problem					***3175***
Insured all year, not underinsured (by definition (2))	*73.6%*	*80.9%*	*7.2****	*7.1****	
Insured all year, underinsured (by definition (2))	*9.1%*	*7.0%*	*-2.1*	*-1.8*	
Uninsured during the year	*17.3%*	*12.2%*	*-5.0****	*-5.2****	

Source: 2006 and 2007 Massachusetts Health Reform Survey

Note: The regression-adjusted differences are derived from regression models that control for age, gender, race/ethnicity, citizenship, marital status, parent status, education, literacy, employment, firm size, health status, disability status, whether the individual has one or more chronic conditions, family income, and the following county characteristics: unemployment rate, number of physicians per 1000 population, number of hospital beds per 1000 population.

**(**)(***) Difference is significantly different from zero at the .10 (.05) (.01) level, two-tailed test.*

N.A. Given the small number of higher-income adults who were underinsured, regression-adjusted estimates are not available.

Similar patterns are reported for underinsured and uninsured adults among lower-income adults (who make up the vast majority of the underinsured) and adults with health problems. These patterns are not unexpected for these groups since lower-income adults have fewer financial resources to compensate for a lack of adequate coverage and adults with health problems have higher health care needs (making insurance even more important to financial security).

Although underinsurance in Massachusetts is relatively low relative to the nation as a whole and declining, there are reasons to be concerned about the populations that remain underinsured. Relative to adults with insurance who are not underinsured, the underinsured in Massachusetts in fall 2007 tended to be younger, Hispanic, in poorer health, and to have much lower family incomes (table 4). Underinsured adults, like uninsured adults, are also somewhat more likely to be located in parts of the state outside of the greater Boston area.

{TABLE 3} *Problems with Medical Bills and Other Financial Issues for All Adults 18 to 64, by Insurance Status, 2007*

	Insured all year, not underinsured [a]	Insured all year, underinsured [a]	Uninsured at any time in year
All Adults			
Had problems paying medical bills in last 12 months	*11.1%*	*34.8%****	*40.3%****
Have medical bills that are paying off over time	*14.7%*	*36.2%****	*32.7%****
Had problems paying other bills in last 12 months	*19.7%*	*29.4%***	*42.0%****
Did not get needed care in last 12 months because of cost	*6.4%*	*16.9%****	*36.8%****
All Adults with Family Income Less than 300% FPL			
Had problems paying medical bills in last 12 months	*15.7%*	*36.7%****	*41.7%****
Have medical bills that are paying off over time	*17.5%*	*33.4%***	*33.2%****
Had problems paying other bills in last 12 months	*32.7%*	*31.3%*	*46.3%****
Did not get needed care in last 12 months because of cost	*9.9%*	*18.2%**	*36.2%****
All Adults with Family Income at 300% FPL or More			
Had problems paying medical bills in last 12 months	*8.7%*	*N.A.*	*37.0%****
Have medical bills that are paying off over time	*13.3%*	*N.A.*	*31.6%****
Had problems paying other bills in last 12 months	*12.8%*	*N.A.*	*31.5%****
Did not get needed care in last 12 months because of cost	*4.6%*	*N.A.*	*38.4%****
All Adults with a Health Problem			
Had problems paying medical bills in last 12 months	*13.1%*	*29.3%****	*54.8%****
Have medical bills that are paying off over time	*16.2%*	*37.2%****	*45.8%****
Had problems paying other bills in last 12 months	*24.0%*	*31.4%*	*52.8%****
Did not get needed care in last 12 months because of cost	*7.1%*	*19.2%****	*46.5%****
Sample Size	*2100*	*152*	*555*

Source: 2007 Massachusetts Health Reform Survey

**(**)(***)Significantly different from value for adults who were "insured all year, not underinsured" at the .10 (.05) (.01) level, two-tailed test.*

N.A. Because of the small number of higher income adults who are underinsured, we do not report tabulations for that subsample.

[a]Underinsurance is defined using definition (2) as described in the text.

{TABLE 4} *Characteristics of All Adults 18 to 64, by Insurance Status, 2007*

	Insured all year, not underinsured [a]	Insured all year, underinsured [a]	Uninsured at any time in year
Age (%)			
18 to 25 years	12.6%	23.9%**	28.8%***
26 to 34 years	18.7%	9.4%**	24.0%*
35 to 49 years	40.2%	36.0%	31.7%**
50 to 64 years	28.5%	30.8%	15.4%***
Female (%)	51.8%	62.2%	47.4%
Race/ethnicity (%)			
White, non-Hispanic	81.6%	69.5%**	71.4%***
Black, non-Hispanic	5.8%	3.7%	9.3%*
Hispanic	5.2%	11.8%**	11.5%***
Citizenship (%)			
U.S. born citizen	85.6%	78.3%*	80.1%**
Foreign born citizen	9.0%	11.6%	9.4%
Non-citizen	5.4%	10.1%	10.5%**
Marital status (%)			
Married	62.5%	44.4%***	36.4%***
Living with a partner	7.4%	2.5%*	16.3%***
Widowed, divorced, separated	9.5%	16.9%**	12.1%
Never married	20.6%	36.1%***	35.2%***
Any children aged 18 or younger in family (%)	47.2%	38.2%	34.3%***
Educational attainment (%)			
Less than high school	5.1%	17.6%***	11.1%***
High school graduate	48.7%	58.3%	67.6%***
College graduate	46.1%	24.1%***	21.2%***
Employed (%)	78.0%	47.7%***	67.2%***
Among those who are employed, firm size (%)			
Self-employed	10.2%	13.2%	20.6%***
Less than 51 workers	23.4%	30.5%	35.3%***
51 workers or more	66.4%	56.3%	44.2%***
Family income less than 300% of FPL (%)	34.4%	92.8%***	71.2%***
Current health status (%)			
Very good or excellent	64.7%	39.0%***	53.1%***
Good	25.0%	31.0%	33.5%***
Fair or poor	10.4%	30.0%***	13.4%
Has work limitation (%)	15.6%	34.3%***	16.6%
Has chronic health condition or problem (%)	49.0%	71.4%***	41.4%**
Region of the State (%)			
Greater Boston	43.6%	42.5%	35.3%**
Rest of state	56.4%	57.5%	64.7%**
Sample Size	2100	152	555

Source: 2007 Massachusetts Health Reform Survey

**(**)(***)Significantly different from value for adults who were "insured all year, not underinsured" at the .10 (.05) (.01) level, two-tailed test.*

[a] *Underinsurance is defined using definition (2) as described in the text.*

{Discussion}

Existing evidence suggests that underinsurance is increasing in the United States as a whole, with about 17 percent of insured adults age 19 to 64 identified as underinsured based on high OOP costs in 2007 (Schoen et al. 2008). In contrast, we find evidence of low levels of underinsurance among insured adults in Massachusetts (at about 6 percent in fall 2007), with underinsurance declining in Massachusetts. Between fall 2006 and fall 2007, the share of insured adults who were underinsured in Massachusetts dropped by almost 2 percentage points. Larger drops were reported for lower-income insured adults and insured adults with health problems—the two groups most vulnerable to the risks of underinsurance.

Further, the evidence suggests that the gains in insurance coverage in Massachusetts under health reform resulted in increases in relatively comprehensive insurance coverage rather than a shift from being uninsured to underinsured. The share of working-age adults in Massachusetts who were uninsured in the prior year dropped by 4 percentage points between fall 2006 and fall 2007, while the share of adults who were insured all year and not underinsured rose by about 5 percentage points.

These findings, combined with the earlier evidence on the increases in insurance coverage under health reform (Long 2008), suggest that health reform in Massachusetts is both providing new coverage for many of those who were previously uninsured and improving the quality of coverage for those with insurance coverage in the state. At the end of roughly one year under health reform, not only has health reform increased health insurance coverage in Massachusetts, but it has also increased the level of protection that is afforded by the health insurance that is available. While this study cannot disentangle the effects of the different components of Massachusetts' health reform initiative to determine which changes are driving the reduction in underinsurance, it is likely that the state's standards for minimum creditable coverage, which established a requirement for comprehensive health coverage, explain at least part of the gains in protection from high health care costs among insured adults in the Massachusetts. It will be important to understand more clearly the role of MCC in preventing underinsurance and continue to monitor changes in underinsurance over time. In addition, continued monitoring of out-of-pocket costs and medical debt will be important to understand and address gaps in the adequacy of coverage.

The findings also highlight the similarities between the uninsured and the underinsured with respect to the medical burdens of health care expenditures, along with high levels of unmet need for care because of costs. It will be important to monitor both uninsurance and underinsurance in the state as Massachusetts moves forward with higher cost sharing and higher premiums under the CommCare and CommChoice programs (Kaiser Family Foundation 2008). Given the higher than expected costs of health care reform in Massachusetts, it is an open question as to whether the state can both continue to move closer to universal coverage and provide strong financial protections from high health care costs for residents of the state. Another round of the survey, planned for fall 2008, will track insurance coverage and underinsurance in the state as part of the ongoing evaluation of health reform in Massachusetts.

{References}

Long, S. K. 2008. "On the Road to Universal Coverage: Impacts of Reform in Massachusetts at One Year." *Health Affairs*, 27(4): w270-w284 (Published online 3 June 2008)

Kaiser Family Foundation. 2008. "Massachusetts Health Insurance Connector Approves 10% Increase in Affordability Standards." *Daily Health Policy Report—StateWatch*. http://www.kaisernetwork.org/Daily_reports/rep_index.cfm?DR_ID=51481.

Mohr, L. B. 1995. *Impact Analysis for Program Evaluation*, 2nd ed. Thousand Oaks, CA: Sage Publications.

Schoen, C., S. R. Collins, J. L. Kriss, and M. M. Doty. 2008. "How Many Are Underinsured? Trends among U.S. Adults, 2003 and 2007." *Health Affairs*, 27(4): w298-w309 (Published online 10 June 2008).

Schoen, C., M. M. Doty, S. R. Collins, and A. L. Holmgren. 2005. "Insured but Not Protected: How Many Adults Are Underinsured?" *Health Affairs*, web exclusive.

Short, P. P., and J. S. Banthin. 1995. "New Estimates of the Underinsured Younger Than 65 Years." *Journal of the American Medical Association* 274: 1302–6.

StataCorp. 2007. *Stata Statistical Software: Release 10*. College Station, TX: StataCorp